

# INSTALLATION/ OWNERS MANUAL

MOBILE THEATER SERIES WITH SWIVEL MOUNT MIDRANGE AND TWEETER

6"x 9" TWO-WAY AND THREE-WAY SPEAKERS





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## **SPECIFICATIONS**

MODEL	PST-692	PST-693
Nominal Diameter	6 x 9"	6 x 9"
Description	2-Way	3-Way
Impedance	4 Ohms	4 Ohms
Freq. Response (Hz)	40-20,000	40-20,000
Sensitivity (dB)	91	91
Input Power Handling	175 Watts	200 Watts
Magnet Weight	25 oz.	25 oz.
Tweeter Size	25 mm	19 mm
Mid Range Size	N/A	25 mm
Installation		
Mounting Depth	3 1/2"	3 1/2"

#### PRE-INSTALLATION TIPS

Before beginning your installation, read the following tips on proper placement of speakers and how to obtain the best sound from the speakers you have selected.

#### No. 1:

Always try to have the speakers aimed at the listener. Never install speakers in a manner that would direct sound toward the floor of the car. The only exception to not aiming a speaker would be the rear deck (package shelf behind rear seat). The natural curve of the rear window, combined with the wide-dispersion tendency of bass sounds, allows woofers to perform exceptionally well in this location. This is not true for high-frequency sounds which will be absorbed by the roof liner long before they reach your ears.

#### No. 2:

High and mid-frequency sounds are very directional (the higher the frequency, the more directional it is). This simply means that a tweeter or mid-range speaker pointing toward the floor (or roof) will only be clearly heard in the direction at which it is pointed. For this reason, it is critical that tweeters and mid-range speakers always be installed so they aim in toward the passenger area and as high in the car as possible (on top of dash or high up in door panels). Never install tweeters low in the car.

#### No. 3:

Select *solid* mounting panels! Always make certain the selected panel is solid and securely attached to the car. Clipped-in plastic

or fire panels make poor mounting surfaces and tend to vibrate when used. This is far more critical when installing large power producing woofers. **Mount your speakers securely!** If the speaker has four mounting holes, use all of them.

#### No. 4:

Woofers need "breathing" room! For a speaker to perform efficiently, it must move large amounts of air. If you restrict this airflow (try to fit a large speaker in a small space or if you undercut the recommended mounting hole size), you won't have an efficient speaker. Conversely, the enclosure you mount them in should be somewhat sealed. In other words, if you mount speakers in door panels, don't cut any extra holes in the door.

#### No. 5:

Tweeters can go in places other speakers can't. They don't need "breathing" room or reinforced mounting panels. All they require is directional placement. (See tip No. 2.)

#### No. 6:

Never let any part of the speaker (except the mounting flange) touch any part of the car. You'll be amazed what noises a speaker (and your car) can produce when one touches the other.

#### No. 7:

Don't skimp on the quality of the speaker wiring. All Audiovox speakers include wiring rated to properly transmit the normal power load the speaker is designed for.

## INSTALLATION INSTRUCTIONS

# **CAUTION:** Do not mount the speakers in the following locations:

- Where the door window glass comes in contact with the speaker.
- Where the speaker comes in contact with the window crank handles or gear assemblies when rotated.
- Where the speakers come in contact with the trunk springs, shock towers, or trunk lid.
- Where the speakers come in contact with gas tanks or fuel lines.
- Where the speakers come in contact with the rear window glass, car wall, etc.

We strongly recommend that you read these instructions first before you commence speaker installation. If the instructions appear to be too difficult, or if you lack any of the equipment necessary to finish the job, perhaps it would be more prudent to refer the installation to a qualified, car stereo professional.

**Ease of Installation -** The car manufacturer provides at least two, and possibly four, pre-cut openings in all cars. When only two are provided, one is usually in the rear deck and the other is in the front dash. Provisions for four speakers usually include two rear deck openings and two door or dash openings. A car manufacturer picks speaker locations that simplify installation and fit available spaces. They are not always the best places for sound reproduction.

**Using Factory Openings -** The one advantage to using the factory openings is you avoid having cut sheet metal, as the holes are prepunched. You normally have only to cut away thin plastic or fiber panels that conceal the openings. Openings near the floor should be avoided if at all possible.

**Be Innovative -** If you're mechanically inclined, remove door panels, dash, side panels, etc., and really get into the basic construction of the car. You'll be amazed at the vast amount of good-to-excellent speaker locations a car can conceal.

*If You Don't Wish to Cut Holes -* Consider the hang-on or surface-mount type of speakers. Just pick a reasonably flat panel, drill a few holes, fasten a few screws, and you're listening to stereo.

## INSTALLING OVAL SPEAKERS IN REAR DECKS OR FLAT SURFACES

Most cars are factory-equipped with speaker openings in the rear deck (package shelf). By examining the underside of this panel, using trunk access, you will probably find at least one (usually two) oval-shaped holes in the steel underliner of the rear deck. The size of these holes vary with the make of car, but the most common openings are for 6"x9", 5"x7", and 4"x10" speakers. Oc-

## Selecting the Speaker Location

casionally, you'll find a 5" or 5-1/4" round hole.

Use the following guidelines to select the speaker location:

- Examine the deck panel thoroughly. Observe movement of the trunk springs, trunk lid, support hinges, power antenna, etc. Obviously, you don't want to install a speaker where the arc of a moving trunk support would interfere with the speaker grille. Avoid all areas that might cause interference with the normal functions of the trunk lid and/or antenna assembly.
- **CAUTION:** Even professional installers have mounted a speaker and then found out it interfered with some moving part.
- 2. Check the speakers you have purchased against the existing holes in the steel sub-liner by placing the speaker against the

bottom of the opening and check that the speaker matches the shape of the existing cut-out. Also check that the four speaker mounting holes align with the four existing holes in the steel sub-liner.

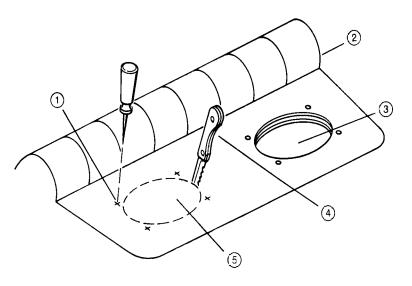
### **Cutting Speaker Opening**

Prepare the speaker opening as follows:

- **NOTE:** This procedure can also be used for any flat panel install (Wagons, Vans, etc.) that have sufficient space behind the panel for recessing the speaker. (The panel must be removable or accessible from behind.)
  - 1. Provided that all holes align, place speaker aside and proceed to cut out the oval opening in the fiber panel that covers the existing hole in the steel sub-liner.
- **NOTE:** It is easier to cut the opening if you use a sharp serrated steak knife in a sawing motion. Use care not to over-cut the hole size by periodically checking the speaker grille.
- 2. Once the speaker openings have been cut, pierce the four speaker mounting holes and enlarge them to a diameter of 3/16".

#### Grille Installation

Inspect the grille included with the speaker. If the grille contains existing threaded studs projecting from it, skip this section. If the grille contains four threaded holes in it, locate the threaded rods included with the speaker and screw them firmly into the holes in the grille. The third grille type contains four holes for use with four screws. Proceed with grille installation as follows:

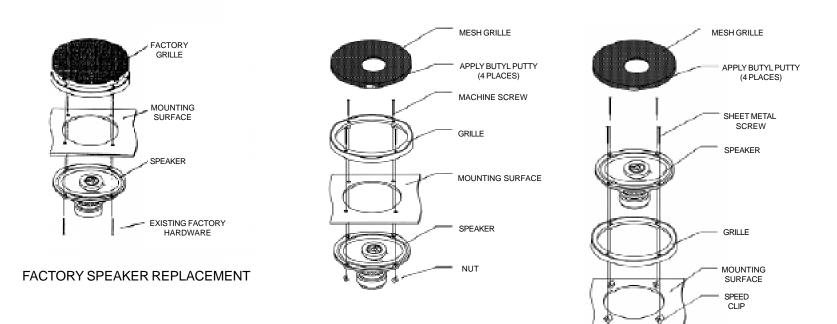




- 1. Place grille on top of package shelf, allowing the studs to protrude through the holes you previously punched.
- 2. Place the speaker below the shelf and align it over the four studs of the grille. Secure the speaker using four speed clips included. If the grille requires screws and nuts, insert the screws from the top of the rear deck, and through the grille and speaker; secure grille and speaker with hex nuts.
- 3. Repeat entire procedure for remaining speaker.
- 4. Wire speakers per instructions for your stereo system.

## Speaker Mounting Details

The following illustrations define the requirements for mounting the speaker on the near and far sides of the mounting surface or independent mounting board.



**TYPICAL SPEAKER INSTALLATION** 



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